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TS#165487

C E N T R A L I N T E L L I G E N C E A G E N C Y  
O F F I C E O F N A T I O N A L E S T I M A T E S

8 November 1962

MEMORANDUM

S U B J E C T : Possible Soviet Military Reactions to the Cuban  
Outcome: Gimmicks and Programs

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The attached memorandum is forwarded for your information. It was prepared for the members of the Rostow Advance Planning Subcommittee of the Executive Council. It is a collaborative effort by members of OSI, ORR, and ONE and was disseminated to the Rostow group as a CIA memorandum.



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SUBJECT: Possible Soviet Military Reactions to the Cuban  
Outcome: Gimmicks and Programs

1. In putting strategic missiles into Cuba, the USSR clearly was seeking a major political accomplishment. But the venture, and the risks which were accepted, suggest that in addition the Soviets may have been seeking a way to improve the strategic relationship between themselves and the US. While they probably attribute their failure primarily to US local advantage in the Caribbean they also believe that its strategic superiority bolstered US confidence in responding to the local challenge. At any rate, the outcome certainly has not reduced their desire to find some way, in real terms, to counter or offset US long-range striking power. And their desire to do this in apparent terms has doubtless grown, since the course of the crisis has led many in the world to wonder whether the USSR backed down because of strategic weakness.

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2. There are some measures, based on existing programs, which could be taken fairly quickly and inexpensively to help rebuild the world image of Soviet strategic might. These measures, however, are unlikely to have much effect on US government calculations of relative strength. Changing the real balance is much harder. Programs of this sort would necessarily be costly; they cannot all be pursued simultaneously; any substantial increase in the present array of programs will injure non-military objectives; the USSR would have to expect the US to obtain enough knowledge of new efforts to begin countermeasures before they are completed. Furthermore, only limited measures can be taken quickly. It would be virtually impossible, for example, for the USSR to acquire within the next year any significant new ICBM or missile submarine capability over that presently planned.

Demonstrations in the Next Year Or So

3. A number of military and space accomplishments are now within Soviet capabilities, and some demonstrative feats were probably scheduled well before the Cuban crisis. None of these represents a radical advance, and none is likely to change the world opinion about relative US-USSR strength. Some have important political drawbacks. Nevertheless, the Soviets may believe that

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continuing accomplishments of this sort would help to restore the power image tarnished in the showdown over Cuba.

4. Space Feats. A series of space accomplishments during the next year was certainly programmed before the Cuban crisis, but the USSR might try to accelerate its earlier schedule in hopes of off-setting the impression of inferiority left by the outcome. In 1962-63, the following individual space missions will probably be within Soviet capabilities, although it is unlikely that they can all be accomplished during this period: multi-manned satellite; rendezvous and possible docking of two satellites; a ten-day manned satellite; unmanned circumlunar flight; unmanned satellite placed in lunar orbit; soft lunar landings of instrumented packages; planetary probes.

5. Very High-yield Weapons. The USSR can at any time detonate a nuclear weapon yielding over 100 MT and expect Western verification. Soviet spokesmen could go on to imply that many or all Soviet long-range missiles are equipped with this warhead. Such a demonstration would conflict to some extent with Soviet protestations of peacefulness and concern for disarmament. Moreover, it would not be a radical advance on previous demonstrations and claims. The Soviets might therefore choose to demonstrate

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simultaneously a delivery capability for a very high yield warhead. They could probably do this now, using an existing ICBM to launch and detonate a 100 MT weapon over Novaya Zemlya. Or they might choose to detonate a missile-delivered lower yield weapon (around 25 MT) over the Pacific.

6. Anti-Satellite Capability. There is some chance that the USSR now has a capability to shoot down an earth satellite, either its own or a US one, and this chance will grow in the coming year. The Soviets would probably believe that such a demonstration would increase general respect for their power and fear of their determination. On the other hand, they would take on themselves the onus for making the first military use of space and, if they considered bringing down a US vehicle, they would have to concern themselves about possible US reprisals against Soviet vehicles or other countermeasures.

7. Orbital Bombardment Capability. The USSR can at any time claim that a newly launched earth satellite is carrying a nuclear weapon, arguing that US aggressiveness must be curbed by such special means. The US could not make a convincing denial, and the USSR would probably expect to win some credibility for

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its claim. Again, it would incur some general blame and might provoke US counteraction.

8. Global Rocket. The USSR probably is capable now of substantiating its claims to a "global rocket" which avoids BMEWS detection by firing a missile (with a reduced payload) on a southerly trajectory to impact in the southern or western Pacific. A prior announcement establishing an impact area would increase the credibility of the demonstration. The effect of this demonstration could be increased if instead of using a ballistic trajectory, the vehicle was fired into orbit and then brought down in the announced impact area.

9. Anti-Missile Demonstration. The USSR is in a position to stage a demonstration in which an anti-missile intercepts and destroys an incoming ballistic missile. This sort of accomplishment might commend itself to the Soviet leaders as a means of switching attention from strategic striking power to strategic defense capabilities, where the USSR has a better chance to make credible claims of superiority. Photographs, films, news stories, and leadership statements could be used to sustain claims in this field, but the chances of impressing world opinion would be greatly improved by an actual achievement generally accepted as

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valid. This might be an interception over Sary Shagan or possibly Kamchatka, accompanied by as much publicity as was consistent with security requirements.

Real Improvements in the Near Term

10. Soviet strategic capabilities are of course constantly being strengthened, but a number of immediate measures are available to improve the USSR's present military posture. These include putting more submarines on station within striking distance of the US, dispersing mobile MREMs, and establishing a higher level of alert and dispersal for the Long Range Air Force. The USSR probably believes that these moves, all of which could have been made at any time in the recent past, would come to the attention of the US government, which would then conclude that it faced a greater strategic threat, but not one which gave the USSR a clear strategic advantage. Measures of this sort would not reach the world public.

Real Improvements in the Long Run

11. Existing National Intelligence Estimates project a continuing improvement in Soviet long-range striking forces and air defenses over the next several years. In the offensive field,

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intelligence estimates a steady buildup in numbers of ICBMs and missile-launching submarines, although the numerical increase estimated in delivery vehicles is not so steep as that programmed for US forces. In addition, survivability will improve as missile sites are hardened and the submarine fleet becomes larger, while the warheads yield capabilities for all systems will increase. In strategic defense, the major new element is the anti-missile program, where deployment of one system has already begun at one location (Leningrad) and research and development work toward a more advanced capability is continuing.

12. In any reconsideration of defense programs, we think it very unlikely that the USSR will abandon the concept of balanced forces in an effort to maximize one particular kind of capability, say long-range attack. The Soviet military leadership places a high value upon theater forces and has already succeeded in undoing Khrushchev's plan launched in 1960, to reduce them. With respect to air defense, the traditional Soviet concern with defense and the great scale of the USSR's anti-missile efforts to date persuade us that this program will not be abandoned or drastically cut back to provide resources for competing programs.

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Thus while some savings might be effected in various areas, we think that any major upward revisions in individual programs could only be accomplished through roughly equivalent increases in total military spending.

13. The question of the Soviet long run military reaction to the Cuban affair may be posed in terms of whether the Soviet Union will continue to concentrate on dominating Europe and the Eurasian periphery with strategic weapons and large ground forces, with their intercontinental weapons systems limited to some sort of minimum deterrent level, or will initiate a basic change in its strategy and attempt to achieve parity or even superiority in weapons systems for intercontinental thermonuclear war. We can also look for some intermediate alternative.

14. One plausible option would be to continue what appears to be the current strategy with such modifications as hardening a larger portion of the ICBM force, possible some upward revision of the force level, and ABM deployment for a number of the larger urban areas -- say 20 to 25 -- together with the maintenance and continued modernization of the ground and associated naval and air forces at about present levels. Military space systems might be limited to modest reconnaissance and early warning forces.

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15. A second option, at the other extreme, would be to enter into an ICBM race with the US with the object of achieving parity or marked superiority in the number of launchers operational and in the yield and accuracy of the system. A large submarine-launched long-range ballistic missile force would likely be part of this option. This ICBM force would be supported by extensive deployment of reconnaissance and early warning space systems. Carried to its logical extremes, this option would also include large-scale ABM deployment, say 25 to 30 urban areas as a minimum, and maintenance of ground and naval forces at something like the present levels.

16. Under either option, limited orbital bombardment and other offensive space systems might be added to supplement the other forces and to maximize the political effect of Soviet military posture. (The USIB is currently giving intensive study to Soviet military space objectives; its conclusions will appear in NIE 11-1-62, "Soviet Space Programs," due November 1962.)

17. If the Soviet leaders seek an option falling between these extremes we believe that it will emphasize diversity, seek to create an image of technical superiority, and to maximize the political effects which are offered by very large weapons and by

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orbital weapons. Thus we would expect that the Soviet military posture relative to Europe and the periphery to be similar to that postulated in the first option. Expansion of ground based ICBM programs would be modest, but there would be increased emphasis on hardening. A sizeable sub-launched ballistic missile program would be carried out. ABM deployment might be on the order of 20 to 25 urban areas defended. The most spectacular developments would be in the field of deployment of ICBMs delivering weapons in the 50 to 100 megaton class and of deployment of long-lived orbital bombardment vehicles. If current suggestions are indicative of future plans, the future ICBMs delivering the large weapons would not be limited to north polar trajectories but would be able to approach from almost any azimuth utilizing orbital or sub-orbital trajectories.

18. Clearly, the first option is the least costly and the second option is quite expensive. If the Soviets should continue to eschew a race for intercontinental weapon system parity and settle for a modest ABM system, then the current strain on the Soviet economy could ease considerably within two or three years. The rapid rate of investment growth could be resumed and the prospect of catching up with the US, between 1970 and 1980, at least

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as far as heavy industry is concerned, would be relatively good. The middle option would continue the strain somewhat longer but would be more consistent with Khrushchev's competitive coexistence strategy. The all out arms race option would exacerbate present military burden, continue the strain for 5 to 10 years, continue to slow the rate of growth by limiting the investment program, and dim the prospects of catching up with the US in this century. It would also draw heavily on the resources required for the Soviet space program, perhaps making it impossible for the USSR to compete with the US in a manned lunar landing and other missions.

19. Some insight into the economic implications of various strategies may be provided by current estimates of the relative cost of various advanced weapons systems. We estimate, for example, that the full cost of creating and operating a 600 launcher second generation ICBM force would be in the neighborhood of 15 billion dollars, and that the bill for 60 ABM complexes (60 launchers each) for 20 to 25 urban areas would be about the same. One hundred ABM complexes would cost nearly 25 billion while the cost of defending 100 cities probably would exceed 40 billion dollars. We estimate that the 600 soft MRBM/IRBM launchers have cost the USSR

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just under 7 billion dollars while a hardened program of 150 to 200 launchers might cost on the order of 2 billion dollars.

20. Soviet submarine-launched ballistic missile systems suitable for attacking the US currently are considerably more expensive than an ICBM force with comparable capability, but progress in developing a submarine/missile weapon system with a larger missile load per submarine would probably reduce the disparity. We believe that orbital bombardment systems will be significantly more expensive than ICBM systems. The relative cost of large payload ICBMs is difficult to estimate in view of the uncertainty concerning their technical characteristics and the problems of hardening launchers of this size.

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Approved For Release 2005/12/23 : CIA-RDP84-00499R000100110026-6

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